

Here are parts lists for both ribbon and dome tweeter versions of the ER18 MTM speakers (see below). I priced the drivers and crossover parts (as of March 1, 2017) with info from Madisound (Mad) <https://www.madisoundspeakerstore.com/index.php?p=home>, Parts Express (PE) <https://www.parts-express.com/>, or Meniscus Audio <http://meniscusaudio.com/>.

I chose the least expensive metalized polypropylene capacitors available, usually Dayton (PE) or Bennic (Mad). In my experience, they always measure exactly as their printed label indicates. I chose the slightly more expensive Solen 22  $\mu$ F cap only because no Dayton or Bennic cap existed in that size. For inductor coils, I chose air core with 15 or 16 gauge wire for the inductors in series with the woofers, and 18 or 19 gauge for all the rest. Larger 14 or 12 gauge inductors cost a lot more and their larger size makes crossover assembly more difficult. I avoid the copper foil inductors because they are difficult to solder, and they are also very expensive.

Meniscus Audio sells kits with similar parts for both versions of the ER18 MTM towers, and also the ER15 Center speaker <http://meniscusaudio.com/kits-c-133.html?page=2&sort=3a>. Their prices seem to be similar. For example, they sell the ER18 MTM Dome Tweeter kit for \$680 (including stuffing, mounting screws, and hook up wire which are not in my lists below), and a bare bones kit (drivers and crossover parts only) for \$633.70. (Meniscus Audio does include binding posts but not the spiked cabinet feet.) Compare that to \$604.24 in my list below. In my lists, I selected parts from both Madisound and PE based on price, but I didn't include the shipping costs. This may make a difference. It is possible that with shipping costs included, the Meniscus Audio kits might actually be a better price.

ER18MTM Kit with dome tweeters    Complete kit \$680    Bare bones kit \$633.70  
<http://meniscusaudio.com/er18mtm-dome-pair-p-1322.html>

ER18MTM Kit with ribbon tweeters    Complete kit \$740    Bare bones kit \$689.84  
<http://meniscusaudio.com/er18mtm-ribbon-pair-p-1323.html>

Some of the parts on these lists, such as binding posts and cabinet spiked feet are my own personal choices. Feel free to change them if you wish, as they will have no direct effect on speaker performance.

If you can get these parts at a better price from other vendors, feel free to do so.

**ER18 MTM with Fountek NeoCd3.0 Ribbon Tweeter**

as of March 1, 2017

<b>Part</b>	<b>Vendor</b>	<b>Part #</b>	<b>#</b>	<b>\$ each</b>	<b>\$ Total</b>
<a href="#">Seas ER18RNX woofer</a>	Mad	H1456	4	90.50	362.00
<a href="#">Fountek NeoCd3.0 ribbon tweeter</a>	Mad	NeoCd3.0M-BLK	2	91.60	183.20
<a href="#">Binding Post – black</a>	Mad	BG-POSTB	2	3.35	6.70
<a href="#">Binding Post – red</a>	Mad	BG-POSTR	2	3.35	6.70
<a href="#">Port Tube 3" ID × 4½" L (no flare)</a>	PE	260-404	2	2.39	4.78
<a href="#">Dayton DSS3-G Gold 1.3" Spikes (4)</a>	PE	240-676	2	11.90	23.80
<a href="#">1.25 mH 16 g Sidewinder 0.38 Ω</a>	Mad	SW1.25	2	15.90	31.80
<a href="#">0.10 mH 19 g air core 0.1 Ω</a> unwind wire to 0.06 mH	Mad	.1MHL	2	2.40	4.80
<a href="#">0.1 mH 18 g Erse 0.12 Ω</a>	PE	266-800	2	3.79	7.58
<a href="#">0.4 mH 18 g Erse 0.28 Ω</a>	PE	266-814	2	6.35	12.70
<a href="#">6.2 μF capacitor (Dayton)</a>	PE	027-427	2	3.08	6.16
<a href="#">15 μF capacitor (Dayton)</a>	PE	027-432	2	5.98	11.96
<a href="#">16 μF capacitor (Bennic)</a>	Mad	BP16	2	6.30	12.60
<a href="#">22 μF capacitor (Solen)</a>	Mad	CP22	2	8.40	16.80
<a href="#">25 Ω resistor</a>	PE	004-25	4	1.09	4.36
<a href="#">2 Ω resistor</a>	PE	004-2	4	1.09	4.36
<b>Total</b>					<b>\$700.30</b>

Note:

- A 0.06 mH inductor was not available from Madisound or PE, but Meniscus does have it in their kit. I unwound wire from a 0.1 mH inductor until it measured 0.06 mH with a hand held LC meter, but I don't remember how many winds that was. I cut off the excess wire and scraped off about ½" of the clear enamel coating so I could solder the new end.
- I could not find a 50 Ω resistor. I used two 25 Ω resistors wired in series with each other.

**ER18 MTM with Dayton RS28F-4 1" Dome Tweeter**

as of March 1, 2017

<b>Part</b>	<b>Vendor</b>	<b>Part #</b>	<b>#</b>	<b>\$ each</b>	<b>\$ Total</b>
<a href="#">Seas ER18RNX woofer</a>	Mad	H1456	4	90.50	362.00
<a href="#">Dayton RS28F-4 1" dome tweeter</a>	PE	275-140	2	54.75	109.50
<a href="#">Binding Post – black</a>	Mad	BG-POSTB	2	3.35	6.70
<a href="#">Binding Post – red</a>	Mad	BG-POSTR	2	3.35	6.70
<a href="#">Port Tube 3" ID × 4½" L (no flare)</a>	PE	260-404	2	2.39	4.78
<a href="#">Dayton DSS3-G Gold 1.3" Spikes (4)</a>	PE	240-676	2	11.90	23.80
<a href="#">1.5 mH 16 g Sidewinder 0.43 Ω</a>	Mad	SW1.5	2	17.00	34.00
<a href="#">0.05 mH 19 g Aircore 0.17 Ω</a>	Mad	.05MHS	2	2.30	4.60
<a href="#">0.15 mH 19 g Aircore 0.10 Ω</a>	Mad	.15MHL	2	2.70	5.40
<a href="#">25 μF capacitor (Dayton)</a>	PE	027-438	2	7.72	15.44
<a href="#">22 μF capacitor (Solen)</a>	Mad	CP22	2	8.40	16.80
<a href="#">10 μF capacitor (Bennic)</a>	Mad	BP10	2	4.50	9.00
<a href="#">20 Ω resistor</a>	PE	004-20	2	1.38	2.76
<a href="#">0.51 Ω resistor</a>	PE	004-.51	2	1.38	2.76
<b>Total</b>					<b>\$604.24</b>

Note:

- The schematic shows 20 μF and 4.7 μF capacitors wired in parallel with each other, which behave the same as one capacitor with a value of 24.7 μF. A single 25 μF capacitor can be substituted. Dennis said 24.7 μF looked slightly better in his computer simulation, but he doubts if 25 μF will be audibly different than 24.7 μF. I included a 25 μF cap in the list.
- The 0.5 Ω resistor in the tweeter circuit is real. I tried, without success, to find a smaller gauge 0.15 mH inductor coil whose extra DC resistance could allow me to eliminate the 0.5 Ω resistor.